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(54) Olanzapine dihydrate D

Olanzapindihydrat D

Dihydrate D d'olanzapine

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and added to the past with stirring. Sufficient water is then added to produce the required volume.

Example 4

[0045] Suspensions each containing 20 mg of medicament per 5 ml dose are as follows:

	Per 5 ml of suspension
Dihydrate D	20 mg
Sodium carboxymethyl cellulose	50 mg
Syrup	1.25 ml
Benzoic acid solution	0.10 ml
Flavor	q.v.
Color	q.v.
Water	q.s. to 5 ml

[0046] The medicament is passed through a No. 45 mesh U.S. sieve and mixed with the sodium carboxymethylcellulose and syrup to form a smooth paste. The benzoic acid solution, flavor and color is diluted with some of the water and added to the paste with stirring. Sufficient water is then added to produce the required volume.

Claims

1. Dihydrate D olanzapine polymorph having a typical x-ray powder diffraction pattern as represented by the following interplanar spacings **(d)** as set forth in Table 1:

Table 1

d
9.4511
7.7098
7.4482
6.9807
6.5252
5.7076
5.5539
5.223
4.9803
4.8908
4.784
4.6947
4.4271
4.3956
4.3492
4.2834
4.1156
3.7837
3.7118
3.5757
3.482
3.3758
3.3274
3.2413
3.1879
3.135

Table 1 (continued)

d
3.0979
3.016
2.9637
2.907
2.8256
2.7914
2.7317
2.6732
2.5863

2. A Dihydrate D polymorph as claimed in **Claim 1** further **characterized by** substantially the following x-ray powder diffraction pattern wherein d represents the interplanar spacing and I/I_1 represents the typical relative intensities:

d	I/I_1
9.4511	100.00
7.7098	14.23
7.4482	22.43
6.9807	5.73
6.5252	5.45
5.7076	4.24
5.5539	1.60
5.223	62.98
4.9803	22.21
4.8908	15.03
4.784	27.81
4.6947	5.15
4.4271	13.00
4.3956	16.63
4.3492	34.43
4.2834	51.38
4.1156	18.32
3.7837	5.30
3.7118	1.56
3.5757	0.71
3.482	9.39
3.3758	24.87
3.3274	13.49
3.2413	5.97
3.1879	1.04
3.135	3.18
3.0979	1.43
3.016	1.95
2.9637	0.48
2.907	2.42
2.8256	7.46
2.7914	3.61
2.7317	1.47
2.6732	5.19
2.5863	10.62

3. A Dihydrate D of **Claim 2** having less than 2% Dihydrate B wherein Dihydrate B has a typical x-ray powder diffraction pattern as represented by the following interplanar spacings **(d)** as set forth in Table 2:

Table 2

d	I/I_1
9.9045	100.00
6.9985	0.39
6.763	0.17
6.4079	0.13
6.1548	0.85
6.0611	0.99
5.8933	0.35
5.6987	0.12
5.4395	1.30
5.1983	0.67
5.0843	0.24
4.9478	0.34
4.7941	6.53
4.696	1.26
4.5272	2.65
4.4351	2.18
4.3474	1.85
4.2657	0.49
4.1954	0.69
4.0555	0.42
3.9903	0.89
3.9244	1.52
3.8561	0.99
3.8137	1.44
3.7671	0.92
3.6989	1.78
3.6527	0.60
3.5665	0.34
3.4879	1.41
3.3911	0.27
3.3289	0.20
3.2316	0.31
3.1982	0.19
3.1393	0.35
3.0824	0.18
2.9899	0.26
2.9484	0.38
2.9081	0.29
2.8551	0.37
2.8324	0.49
2.751	0.37
2.7323	0.64
2.6787	0.23
2.6424	0.38
2.5937	0.21

4. A pharmaceutical formulation comprising as an active ingredient of **Claims 1, 2 or 3** associated with one or more

pharmaceutically acceptable carriers, diluents, or excipients therefor.

5. A formulation of **Claim 4** wherein the formulation is an aqueous suspension.

6. A formulation of **Claim 5** wherein the formulation is a tablet.

7. Use of an effective amount of compound of **Claims 1, 2 or 3** for the manufacture of a medicament for treating a psychotic condition in a mammal.

8. Use of an effective amount of compound of **Claims 1, 2 or 3** for the manufacture of a medicament for treating a condition selected from the group consisting of anxiety, schizophrenia, schizophreniform disorder, a functional bowel disorder, and psychosis in a mammal.

9. A process for preparing crystalline olanzapine dihydrate D comprising stirring technical grade olanzapine in an aqueous solvent from about one hour to about six days until dihydrate D is formed.

10. The process of **Claim 9** wherein the olanzapine is stirred for at least 12 hours.

11. The process of **Claim 10** wherein the olanzapine is stirred for at least 24 hours.

12. The process of **Claim 11** wherein the olanzapine is stirred for about 5 days.

13. The process of **Claim 9** wherein the solvent includes a wetting agent.

14. The process of **Claim 9** which includes the additional step of drying the dihydrate D using a technique sufficiently mild to avoid desolvation of the dihydrate D.

Patentansprüche

1. Dihydrat D des Olanzapinpolymorphs mit einem typischen Röntgenbeugungsmuster am Pulver, wie dies durch die folgenden Interplanarabstände (d) in Tabelle 1 dargestellt ist:

Tabelle 1

d
9,4511
7,7098
7,4482
6,9807
6,5252
5,7076
5,5539
5,223
4,9803
4,8908
4,784
4,6947
4,4271
4,3956
4,3492
4,2834
4,1156
3,7837
3,7118
3,5757